Title (en)

SYSTEM FOR DETECTION OF AIR/FUEL RATIO IN IC ENGINE BY USING OXYGEN SENSOR OPERATED WITH SUPPLY OF CURRENT

Publication

EP 0082372 A3 19841121 (EN)

Application

EP 82111193 A 19821203

Priority

JP 20477981 A 19811218

Abstract (en)

[origin: JPS58105014A] PURPOSE:To enable to normally hold an oxygen partial pressure at a reference oxygen pole side in a constant manner, by a method wherein, based on an output of an oxygen sensor, a voltage, which is substraction of a constant voltage from the oxygen sensor output or addition of the constant voltage to it according to a relation between an air-fuel ratio and a theoretical air-fuel ratio, is smoothed, and a current, proportioning an absolute value of the positive or the negative smoothing voltage, flows out from or flows in the oxygen sensor. CONSTITUTION:Corresponding to an oxygen density in exhaust gas, a sensor output is high at a thick air-fuel side and is low at a thin side. A comparator 61 outputs a high level voltage at the thick side, and outputs a low level voltage at the thin side. Thus, a feed back amplifier 71 outputs a voltage which is substraction of a constant voltage DELTAV from a sensor voltage at the thick air-fuel ratio side and reversely is addition of the constant voltage DELTAV thereto. The output is smoothed by a capacitor 74 to produce a smoothing voltage Va. If the smoothing voltage Va is minus, an operational amplifier 65 outputs a positive current Is to a reference oxygen pole 15. If the smoothing voltage Va is plus, it, reversely, flows out the current Is, proportioning the absolute value of the Va, from the reference oxygen pole 15.

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F02D 35/00; G01N 27/56

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CPC (source: EP US)

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Citation (search report)

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